FIGURE 1

Nucleotide and deduced amino acid sequence of human VR2

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5    CACGAGGCCGACGCGCAGCTGGGAGGAAGACAGGACCCTTGACATCTCCATCTGCACAGA

     GGTCCTGGCTGGACCGAGCAGCCTCCTCCTCCTAGGATGACCTCACCCTCCAGCTCTCCA
                                          M  T  S  P  S  S  S  P

10   GTTTTCAGGTTGGAGACATTAGATGGAGGCCAAGAAGATGGCTCTGAGGCGGACAGAGGA
     V  F  R  L  E  T  L  D  G  G  Q  E  D  G  S  E  A  D  R  G

     AAGCTGGATTTTGGGAGCGGGCTGCCTCCCATGGAGTCACAGTTCCAGGGCGAGGACCGG
     K  L  D  F  G  S  G  L  P  P  M  E  S  Q  F  Q  G  E  D  R
15

     AAATTCGCCCCTCAGATAAGAGTCAACCTCAACTACCGAAAGGGAACAGGTGCCAGTCAG
     K  F  A  P  Q  I  R  V  N  L  N  Y  R  K  G  T  G  A  S  Q

     CCGGATCCAAACCGATTTGACCGAGATCGGCTCTTCAATGCGGTCTCCCGGGGTGTCCCC
20   P  D  P  N  R  F  D  R  D  R  L  F  N  A  V  S  R  G  V  P

     GAGGATCTGGCTGGACTTCCAGAGTACCTGAGCAAGACCAGCAAGTACCTCACCGACTCG
     E  D  L  A  G  L  P  E  Y  L  S  K  T  S  K  Y  L  T  D  S

25   GAATACACAGAGGGCTCCACAGGTAAGACGTGCCTGATGAAGGCTGTGCTGAACCTTAAG
     E  Y  T  E  G  S  T  G  K  T  C  L  M  K  A  V  L  N  L  K

     GACGGAGTCAATGCCTGCATTCTGCCACTGCTGCAGATCGACAGGGACTCTGGCAATCCT
     D  G  V  N  A  C  I  L  P  L  L  Q  I  D  R  D  S  G  N  P
30

     CAGCCCCTGGTAAATGCCCAGTGCACAGATGACTATTACCGAGGCCACAGCGCTCTGCAC
     Q  P  L  V  N  A  Q  C  T  D  D  Y  Y  R  G  H  S  A  L  H

     ATCGCCATTGAGAAGAGGAGTCTGCAGTGTGTGAAGCTCCTGGTGGAGAATGGGGCCAAT
35   I  A  I  E  K  R  S  L  Q  C  V  K  L  L  V  E  N  G  A  N

     GTGCATGCCCGGGCCTGCGGCCGCTTCTTCCAGAAGGGCCAAGGGACTTGCTTTTATTTC
     V  H  A  R  A  C  G  R  F  F  Q  K  G  Q  G  T  C  F  Y  F

40   GGTGAGCTACCCCTCTCTTTGGCCGCTTGCACCAAGCAGTGGGATGTGGTAAGCTACCTC
     G  E  L  P  L  S  L  A  A  C  T  K  Q  W  D  V  V  S  Y  L

     CTGGAGAACCCACACCAGCCCGCCAGCCTGCAGGCCACTGACTCCCAGGGCAACACAGTC
     L  E  N  P  H  Q  P  A  S  L  Q  A  T  D  S  Q  G  N  T  V
45

     CTGCATGCCCTAGTGATGATCTCGGACAACTCAGCTGAGAACATTGCACTGGTGACCAGC
     L  H  A  L  V  M  I  S  D  N  S  A  E  N  I  A  L  V  T  S

     ATGTATGATGGGCTCCTCCAAGCTGGGGCCCGCCTCTGCCCTACCGTGCAGCTTGAGGAC
50   M  Y  D  G  L  L  Q  A  G  A  R  L  C  P  T  V  Q  L  E  D

     ATCCGCAACCTGCAGGATCTCACGCCTCTGAAGCTGGCCGCCAAGGAGGGCAAGATCGAG
     I  R  N  L  Q  D  L  T  P  L  K  L  A  A  K  E  G  K  I  E

55   ATTTTCAGGCACATCCTGCAGCGGGAGTTTTCAGGACTGAGCCACCTTTCCCGAAAGTTC
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I  F  R  H  I  L  Q  R  E  F  S  G  L  S  H  L  S  R  K  F

ACCGAGTGGTGCTATGGGCCTGTCCGGGTGTCGCTGTATGACCTGGCTTCTGTGGACAGC
T  E  W  C  Y  G  P  V  R  V  S  L  Y  D  L  A  S  V  D  S

TGTGAGGAGAACTCAGTGCTGGAGATCATTGCCTTTCATTGCAAGAGCCCGCACCGACAC
C  E  E  N  S  V  L  E  I  I  A  F  H  C  K  S  P  H  R  H

CGAATGGTCGTTTTGGAGCCCCTGAACAAACTGCTGCAGGCGAAATGGGATCTGCTCATC
R  M  V  V  L  E  P  L  N  K  L  L  Q  A  K  W  D  L  L  I

CCCAAGTTCTTCTTAAACTTCCTGTGTAATCTGATCTACATGTTCATCTTCACCGCTGTT
P  K  F  F  L  N  F  L  C  N  L  I  Y  M  F  I  F  T  A  V

GCCTACCATCAGCCTACCCTGAAGAAGCAGGCCGCCCCTCACCTGAAAGCGGAGGTTGGA
A  Y  H  Q  P  T  L  K  K  Q  A  A  P  H  L  K  A  E  V  G

AACTCCATGCTGCTGACGGGCCACATCCTTATCCTGCTAGGGGGGATCTACCTCCTCGTG
N  S  M  L  L  T  G  H  I  L  I  L  L  G  G  I  Y  L  L  V

GGCCAGCTGTGGTACTTCTGGCGGCGCCACGTGTTCATCTGGATCTCGTTCATAGACAGC
G  Q  L  W  Y  F  W  R  R  H  V  F  I  W  I  S  F  I  D  S

TACTTTGAAATCCTCTTCCTGTTCCAGGCCCTGCTCACAGTGGTGTCCCAGGTGCTGTGT
Y  F  E  I  L  F  L  F  Q  A  L  L  T  V  V  S  Q  V  L  C

TTCCTGGCCATCGAGTGGTACCTGCCCCTGCTTGTGTCTGCGCTGGTGCTGGGCTGGCTG
F  L  A  I  E  W  Y  L  P  L  L  V  S  A  L  V  L  G  W  L

AACCTGCTTTACTATACACGTGGCTTCCAGCACACAGGCATCTACAGTGTCATGATCCAG
N  L  L  Y  Y  T  R  G  F  Q  H  T  G  I  Y  S  V  M  I  Q

AAGGTCATCCTGCGGGACCTGCTGCGCTTCCTTCTGATCTACTTAGTCTTCCTTTTCGGC
K  V  I  L  R  D  L  L  R  F  L  L  I  Y  L  V  F  L  F  G

TTCGCTGTAGCCCTGGTGAGCCTGAGCCAGGAGGCTTGGCGCCCCGAAGCTCCTACAGGC
F  A  V  A  L  V  S  L  S  Q  E  A  W  R  P  E  A  P  T  G

CCCAATGCCACAGAGTCAGTGCAGCCCATGGAGGGACAGGAGGACGAGGGCAACGGGGCC
P  N  A  T  E  S  V  Q  P  M  E  G  Q  E  D  E  G  N  G  A

CAGTACAGGGGTATCCTGGAAGCCTCCTTGGAGCTCTTCAAATTCACCATCGGCATGGGC
Q  Y  R  G  I  L  E  A  S  L  E  L  F  K  F  T  I  G  M  G

GAGCTGGCCTTCCAGGAGCAGCTGCACTTCCGCGGCATGGTGCTGCTGCTGCTGCTGGCC
E  L  A  F  Q  E  Q  L  H  F  R  G  M  V  L  L  L  L  L  A

TACGTGCTGCTCACCTACATCCTGCTGCTCAACATGCTCATCGCCCTCATGAGCGAGACC
Y  V  L  L  T  Y  I  L  L  L  N  M  L  I  A  L  M  S  E  T

GTCAACAGTGTCGCCACTGACAGCTGGAGCATCTGGAAGCTGCAGAAAGCCATCTCTGTC
V  N  S  V  A  T  D  S  W  S  I  W  K  L  Q  K  A  I  S  V

CTGGAGATGGAGAATGGCTATTGGTGGTGCAGGAAGAAGCAGCGGGCAGGTGTGATGCTG
L  E  M  E  N  G  Y  W  W  C  R  K  K  Q  R  A  G  V  M  L

ACCGTTGGCACTAAGCCAGATGGCAGCCCGGATGAGCGCTGGTGCTTCAGGGTGGAGGAG
T  V  G  T  K  P  D  G  S  P  D  E  R  W  C  F  R  V  E  E
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GTGAACTGGGCTTCATGGGAGCAGACGCTGCCTACGCTGTGTGAGGACCCGTCAGGGGCA
V  N  W  A  S  W  E  Q  T  L  P  T  L  C  E  D  P  S  G  A

GGTGTCCCTCGAACTCTCGAGAACCCTGTCCTGGCTTCCCCTCCCAAGGAGGATGAGGAT
G  V  P  R  T  L  E  N  P  V  L  A  S  P  P  K  E  D  E  D

GGTGCCTCTGAGGAAAACTATGTGCCCGTCCAGCTCCTCCAGTCCAACTGATGGCCCAGA
G  A  S  E  E  N  Y  V  P  V  Q  L  L  Q  S  N  *

TGCAGCAGGAGGCCAGAGGACAGAGCAGAGGATCTTTCCAACCACATCTGCTGGCTCTGG

GGTCCCAGT
```

FIGURE 2

Single-label colorimetric immunohistochemistry showing highly abundant expression of VR2-ir in primate supraoptic nucleus (SO) and paraventricular nucleus of the hypothalamus (PVN)

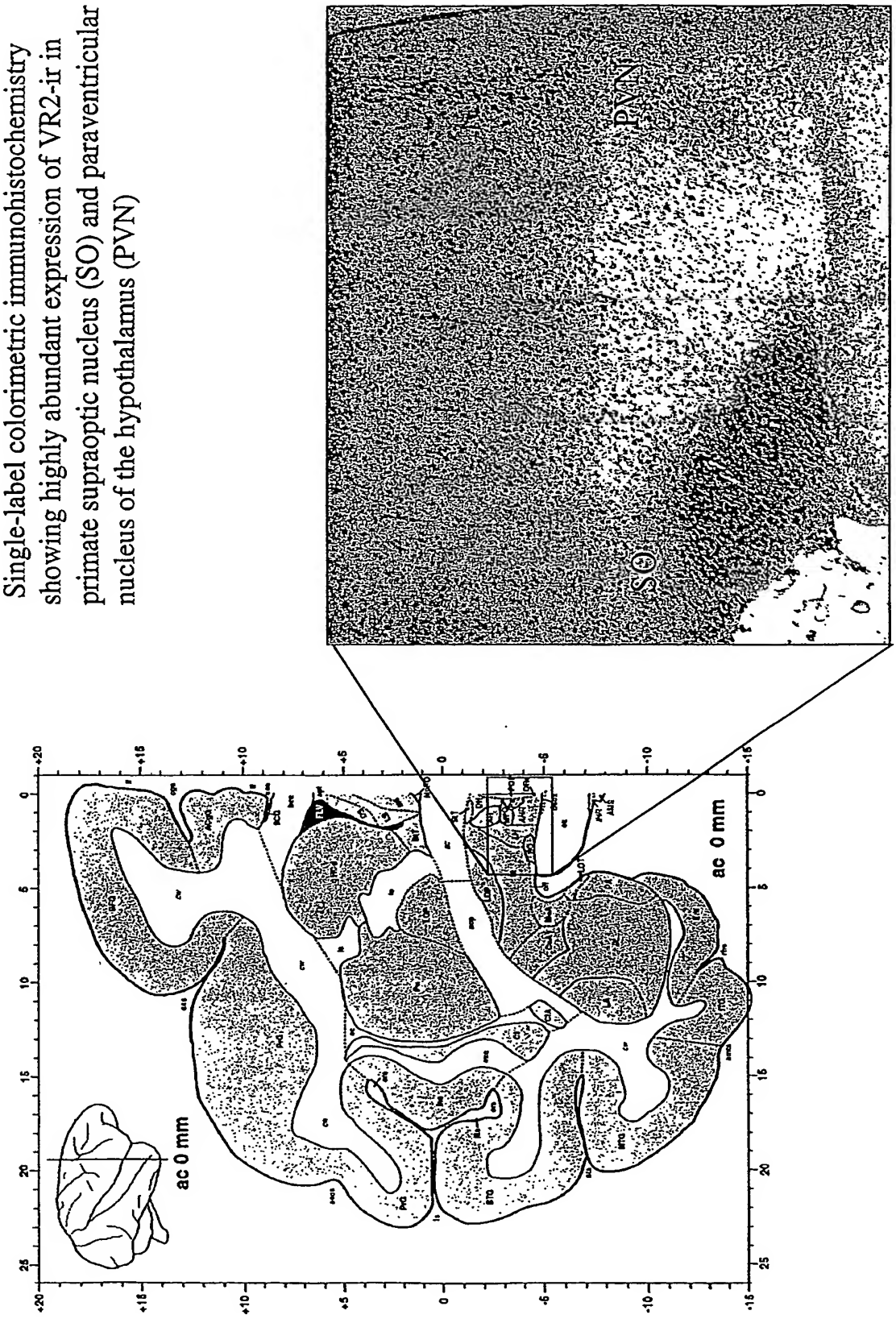
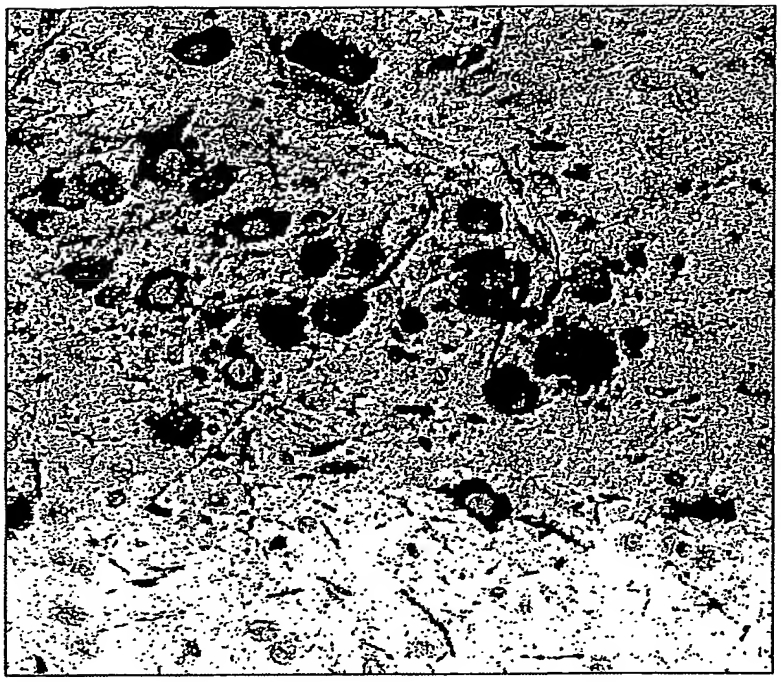
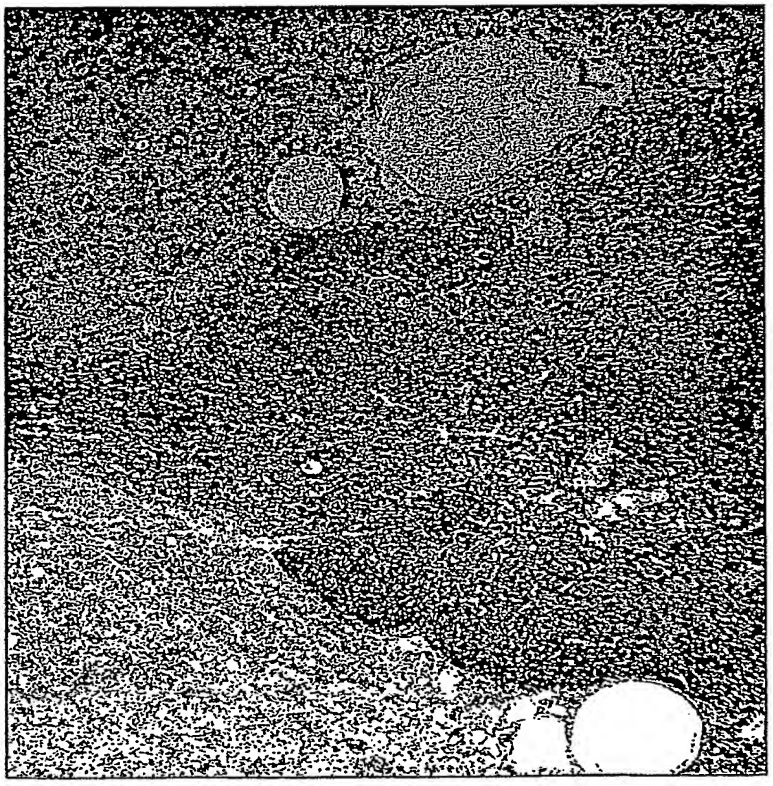


FIGURE 3

Localization of VR2-ir in primate pituitary and suprachiasmatic nucleus



Suprachiasmatic nucleus



Pituitary

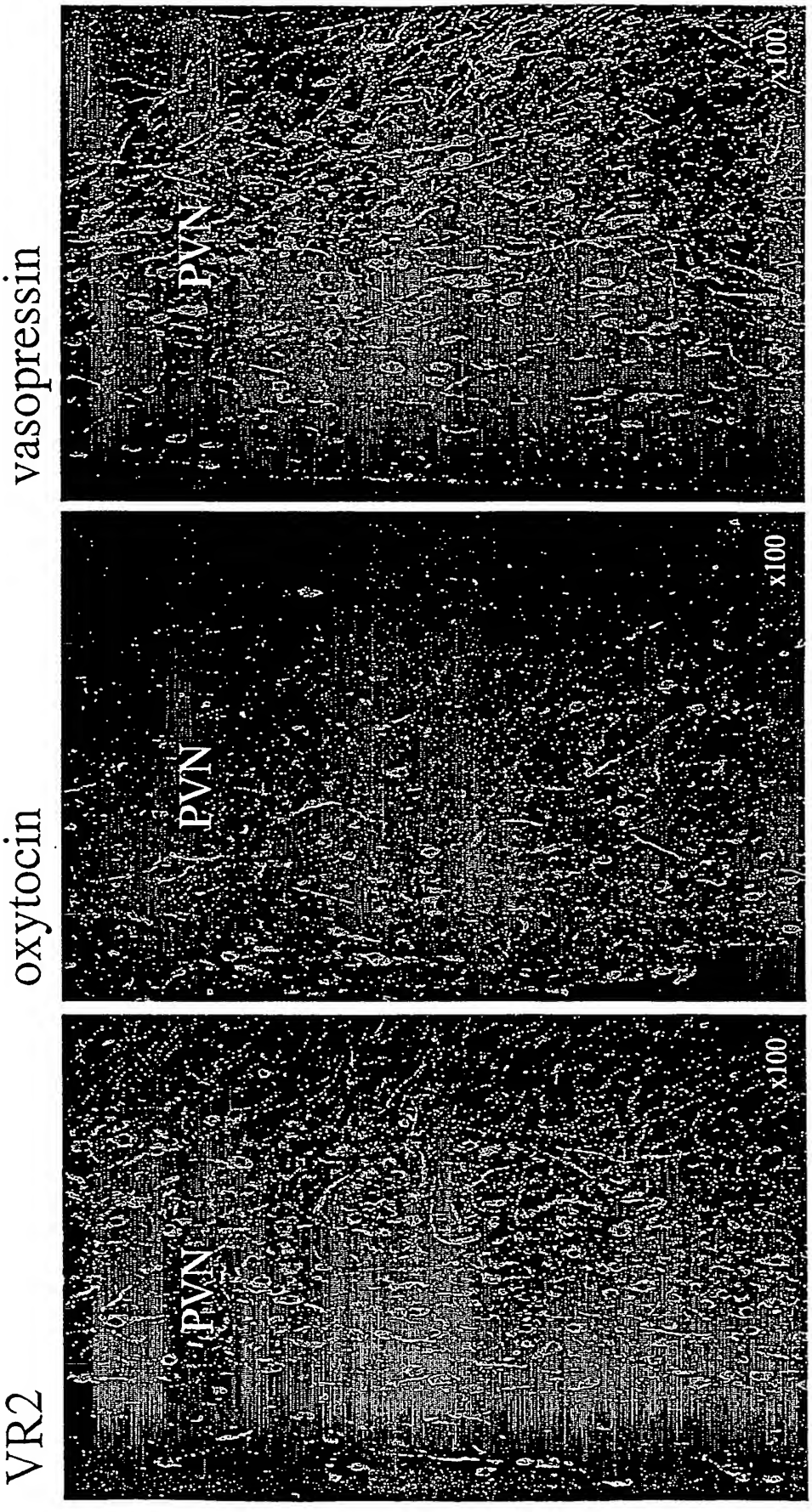
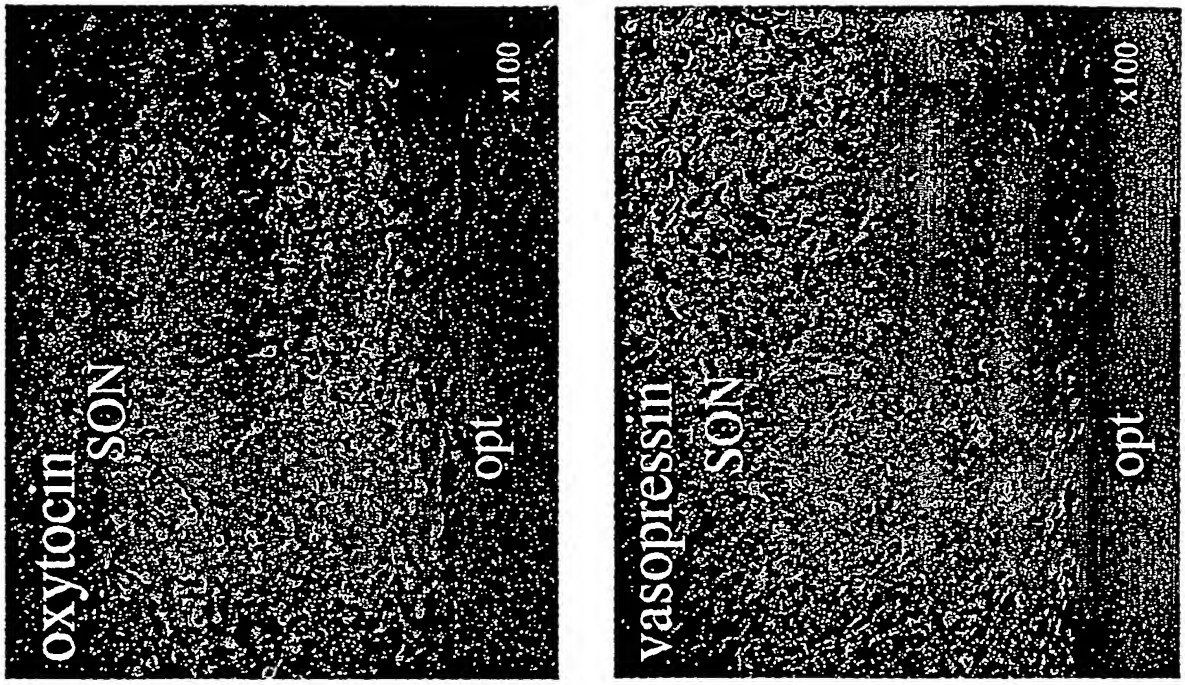


FIGURE 4

Regional co-expression of VR2-ir, oxytocin-ir and vasopressin-ir distribution in primate hypothalamic paraventricular nucleus



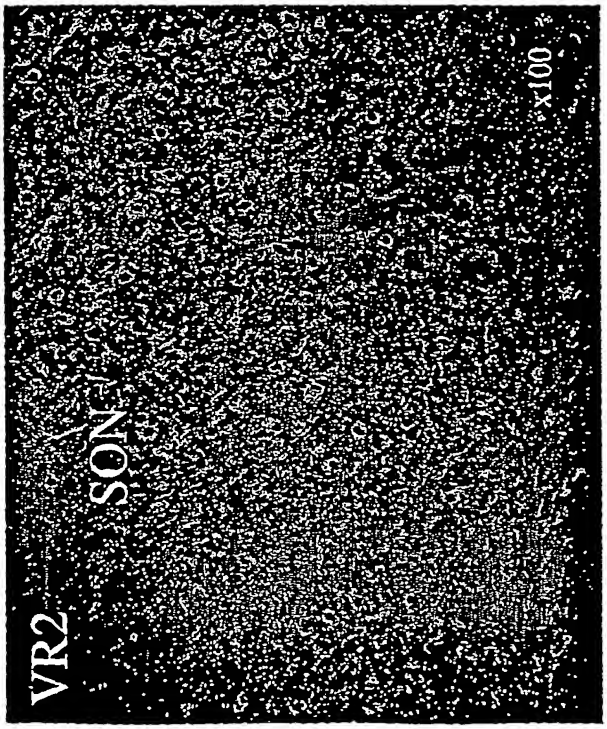


FIGURE 5

Regional co-expression of VR2-ir, oxytocin-ir and vasopressin-ir distribution in primate supraoptic nucleus (SON)